Year: 2016

Spreading fear, communicating trust: writing letters and telegrams during the Panic of 1873

Davies, Hannah Catherine

Abstract: This article analyses how journalists and businessmen used and perceived the Atlantic cable following the failure of New York banking house Jay Cooke Co. in September 1873, an event which sparked stock markets panics in Vienna and Berlin. It is argued that while bankers successfully used telegraphic cables to communicate intelligence such as price information, letters proved superior as a medium for establishing personal trust, as the case of New York banker George Opdyke shows. Journalists, too, were critical of the telegraph's performance, blaming the paucity of information available on the technology's supposedly inherent deficiencies. This criticism, it is argued, was ultimately based on the 'imagined reception' of cables by their senders, as well as on the persistence of earlier imagined uses of telegraphy. These, I argue, continued to inform contemporary expectations of telegraphy's performance.

DOI: https://doi.org/10.1080/07341512.2016.1217597

Originally published at:
Davies, Hannah Catherine (2016). Spreading fear, communicating trust: writing letters and telegrams during the Panic of 1873. History and Technology, 32(2):159-177.
DOI: https://doi.org/10.1080/07341512.2016.1217597

Spreading Fear, Communicating Trust: Writing Letters and Telegrams during the Panic of 1873

Abstract:

This article analyses how journalists and businessmen used and perceived the Atlantic cable following the failure of New York banking house Jay Cooke & Co. in September 1873, an event which sparked stock markets panics in Vienna and Berlin. It is argued that while bankers successfully used telegraphic cables to communicate intelligence such as price information, letters proved superior as a medium for establishing personal trust, as the case of New York banker George Opdyke shows. Journalists, too, were critical of the telegraph's performance, blaming the paucity of information available on the technology's supposedly inherent deficiencies. This criticism, it is argued, was ultimately based on the 'imagined reception' of cables by their senders, as well as on the persistence of earlier imagined uses of telegraphy. These, I argue, continued to inform contemporary expectations of telegraphy's performance.

Keywords: telegraphy, Panic of 1873, financial crisis, journalists, New York, George Opdyke

'The telegraph being alike open to *all* puts the whole community upon a par, and will thus *'head off'* the most adroit speculators, because they will not have the power to *monopolize* intelligence'.[1] These words, written by a business observer in 1846, neatly capture the technological optimism prevalent among many contemporaries in telegraphy's early years. In this imagination, telegraphy would be used to make business transactions fairer, and more equal. No longer would a select few monopolists be allowed to take unfair advantage of exclusively obtained information. Instead, the telegraph would spread financial and economic intelligence far and wide. In reality, of course, the telegraph never was truly 'open to *all*'; rather, it was accessible only to a small slice of the population which could afford its services.[2] Still, within the narrow confines of the business community, the new technology did help even out informational asymmetries, as powerful bankers such as the Rothschilds quickly realized.[3]

By the 1870s, the telegraph had spread far and wide, as many business authors observed. According to Charles W. H. Schultz, in New York City 'every broker's office, as well as … all the principal hotels, restaurants, and bar-rooms throughout the city' featured 'a telegraphic machine … for the information of customers, on which every transaction on stocks is recorded as soon as made.'[4] Such 'information' was often termed 'intelligence' in nineteenth-century business parlance, and denoted anything that could form the basis of a financial transaction or investment decision. As such, it could be both quantitative and qualitative in nature. As contemporary financial publications make clear, both news of certain events – such as the manoeuvres of a stock exchange clique or financial transactions by the government – as well as quantitative information about railway dividends or earnings could be termed 'intelligence' as long as it was considered useful to an investor.[5] An 1865 stock exchange manual claimed that the price of government securities depended 'only on political and financial events, which speculators can foresee in proportion to the acuteness of their intelligence'.[6] Brokerage houses accordingly advertised their services by promising access to information which was normally reserved for insiders.[7] Commenting on such insider knowledge, the *Commercial and Financial Chronicle*, America's foremost business publication, wondered on one occasion whether the most recent movements on the New York Stock Exchange could be explained by speculators' 'private intelligence as to the government transactions' (October 12, 1872). In continuity with earlier uses, the term retained, in this context, its association with secrecy. Financial intelligence in the second half of the nineteenth century, then, remained both coveted and elusive.[8] Even as financial publications replete with columns and spreadsheets became more widely and quickly available, the fear of being outmanoeuvred by a better and/or faster speculator continued to permeate writings about investment and speculation. Telegraphy occupied a central place in this discourse on intelligence and insider knowledge. Its imagined use was manifold. While well-established figures such as the Rothschilds believed it would hurt their business by giving rivals equal access to valuable market information, others anticipated that more widely dispersed information would allow markets to grow both geographically and in volume, and reduce informational asymmetries.

Contemporary entrepreneurs as well as public authorities had been quick to spot telegraphy's potential for financial transactions. Following the laying of telegraphic cables between major cities in Europe and North America from the late 1840s onwards, the transmission of commercial and financial information via cable quickly became a lucrative business opportunity for newly established news agencies. The notion that telegraphy should work in the interests of all – and not just a select few – participants in the marketplace was codified in the 1869 agreement signed between the Prussian state and Prussia's foremost news agency, *Wolff's Telegraphisches Bureau*. While exempting telegrams containing commercial news from prior inspection by state officials, the contract also stipulated that 'all publications pertaining to commercial interests' should be transmitted 'only in an equitable manner that precludes every form of preferential treatment'.[9] In the United States, the *Associated Press* (AP), a coalition of regional press associations, employed agents to collect news and information which they forwarded to Western Union (WU). In 1866, the year of the laying of the first transatlantic telegraph cable, WU controlled more than ninety percent of the telegraphy market, and provided subscribers with a synopsis of prices several times a day. Together, they formed a double-headed monopoly from which many American newspapers who could not afford their services found themselves excluded.[10]

Historians and economists have largely echoed contemporary assessments when examining telegraphy's effects on the economy in general, and financial markets in particular. According to their account, telegraphy had a rationalizing effect on financial transactions, the perhaps most conspicuous manifestation being a price convergence between stocks cross-listed on different European and American bourses. Thus Christopher Hoag has shown that following the introduction of the Atlantic cable, the information lag between markets in New York and London shortened from ten days to hours. In commodity trading, telegraphy facilitated the practice of futures trading (where buyers and sellers agreed to exchange goods at a certain price on a specified date in the future), increasing the volume of trade by accelerating the flow of information. Summing up the relevant literature on the topic, Roland Wenzlhuemer has recently concluded that thanks to the telegraph, investments became 'more predictable and thus safer'.[11] David Hochfelder has provided a more complex account of the relationship between speculation and telegraphy, arguing that telegraphy both reduced certain kinds of speculation (notably arbitrage) while simultaneously encouraging others.[12] Such accounts generally adopt a relatively broad temporal perspective, exploring the smoothing of prices and transactions over periods of several years or decades. This perspective, however, tends to obscure the question of how telegraphy was used, and was seen to perform, during periods of financial crises. These, by their very nature, last only days or, at most, weeks, and are characterized by a widespread breakdown of trust and confidence in financial institutions, a sudden (subjective) realization that deposits are no longer safe, that debts will not be honoured.[13] Given that such periods of financial disruption constituted a profound challenge to economic rationality and order, it seems all the more pertinent to examine how telegraphy's promise of efficiency and progress held up under extreme circumstances. In line with this special issue's overall framework, then, the question at stake is how both imagined use and imagined reception influenced actual use during a moment of crisis. Thanks to David Paull Nickles, we know that telegraphy in the nineteenth century more often than not helped to exacerbate political crises by inundating officials with a flood of hard-to-process information while depriving them of time to carefully weigh their options.[14] It thus seems promising to examine whether telegraphy had a similar effect on decision-makers during financial crises. Indeed, the nexus between technology, financial stability, and efficiency is still widely debated today. There is, as yet, no consensus on whether recent developments in electronic trading, especially high-frequency trading, are more likely to improve or destabilize markets (though it does seem as though its benefits have thus far disproportionately accrued to a small minority of market participants).[15]

Faced with a dearth of relevant historical studies on this question, some historians have speculated that telegraphy helped prevent financial crises. Others have suggested that telegraphic cables, by spreading rumours, rendered financial markets more rather than less crisis-prone.[16] Dwayne Winseck has examined the relationship between telegraphy and the financial crisis of 1873, arguing that 'submarine cables and telegraphic news … were fully enmeshed in the events', both fuelling the speculative bubble and acting as an agent of contagion when it burst. While Winseck's account does much to complicate the standard narrative of telegraphy's rationalizing effect on business, it, too, adopts a relatively broad temporal perspective, covering the years from 1869–1875, and furthermore is based exclusively on English-language sources.[17]

This article will address the issue of financial panics and telegraphy by focusing on the use and imagined reception of telegraphic cables during the period of acute financial distress in September and October 1873, thus integrating perspectives of cultural and business history with the history of technology. The panics of 1873[18] were the first to occur following the laying of the Atlantic cable in 1866. Drawing on American, British, German, and Austrian sources, I will show that transatlantic telegraphy provided timely intelligence to bankers and merchants during a time of financial distress, and was instrumental in smoothing disruptions to the exchange market in late September and early October. In this respect, the 'imagined use' of telegraphy of earlier periods was translated into actual use. In a second step, however, I will show that when evaluating telegraphy's role during this period, it is not sufficient to focus on the established practice of using telegraphy to relay standardized information. Rather, we must also examine the ways in which telegraphy was found to be deficient when crisis struck, when, in other words, imagined use and reception conflicted with actual use. When, as in a financial crisis, confidence suddenly breaks down, a restoration of confidence may be brought about through a single announcement of a financial transaction, such as an increase of the money supply or an influx of specie across the Atlantic. In other cases, however, when people doubt the solvency not of the system but of an individual, something more immaterial and complex – personal trust – is at stake, and the transmission of intelligence no longer suffices. Drawing on the example of New York banker George Opdyke, I will show that when depositors began losing confidence in his solvency, telegraphy could not match older forms of communication; Opdyke chose to write letters rather than telegrams. Similarly, journalists, evoking earlier 'imagined uses', noted that telegraphic cables were inherently deficient due to their lack of coherence and narrativity. Such practices and interpretations, I argue, depended as much on the way contemporaries *imagined* the effect of telegraphic cables on recipients as on their actual effect. This emphasis on imagined use and reception in turn allows me to highlight the way early optimistic expectations of the effect of telegraphy still influenced contemporary beliefs and practices decades after the technology was first introduced. As the Panic of 1873 shows, telegraphy was still very much considered a technological innovation during the 1870s. In this way, the concept of 'imagined use' helps complicate standard periodizations in the history of telegraphy.

Throughout the following, and in line with the overall thrust of this special issue, my aim is to integrate the history of technology both with economic history and with a cultural history of discourses on technology. The history of technology, as David Edgerton pointed out more than fifteen years ago, can achieve this by focussing on the actual use of a specific technology, as well as on extant alternatives and their appeal as this special issue proposes.[19] In this vein, I maintain that in order to better understand the relationship between telegraphy and financial panics, we must look at the way telegraphy was used by bankers and merchants as well as to how they imagined the effect of their telegrams, and finally to the use of letters. The Panic of 1873 is an ideal case study for exploring the importance of imagined use and reception because it crystallized and brought to the fore, as crises are wont to do, beliefs and mentalities that were less visible during normal times.

Wiring Intelligence During a Panic

When in March 1837, New Orleans cotton factor Hermann, Briggs & Co. failed, it took a full eight days for news of the failure to reach New York by stagecoach.[20] On the other side of the Atlantic in London, several banking houses engaged in transatlantic trade were also in severe distress, but due to an unpropitious meteorological constellation, it took several weeks for the sailing ship carrying news of American events to arrive in London. This delay heightened financial uncertainty among the City's distressed merchants and bankers, who were also financially invested in North America.[21] A second major transatlantic financial crisis erupted in 1857. In the United States, westward expansion had caused land values in Kansas and the price of Western railroads securities to soar. In March 1857, the Supreme Court's infamous Dred Scott decision cast doubt on the future of the Western territories, immigration to Kansas dwindled, and land values and Western railway securities depreciated. This put pressure on Eastern financial institutions who had financed the Western expansion. In October 1857, several railway companies announced their failure, causing a panic in New York and a run on the city's banks.[22] By then, telegraphic cables criss-crossed the North American continent connecting the major sites of commerce. But in the absence of a transatlantic telegraph cable, news of a sudden decline in asset prices and bank runs in New York City was still relayed to Europeans by letter. This prompted panicked reactions and a wave of failures in Britain and in Hamburg where merchants had been heavily invested in transatlantic trade. The ensuing economic downturn was sharp, and lasted well into the next year, with growth only returning in 1859.[23] The absence of (transatlantic) cables, then, did not stop financial unrest from spreading across vast territories and oceans. But as the panics of 1873 show, the advent of transatlantic telegraphy nevertheless influenced both the event's trajectory as well as contemporaries' experiences and perceptions.

By 1873, a transatlantic multi-year construction boom in railways and a bull market for railway securities were drawing to a close. The proximate cause of what was quickly dubbed the Panic of 1873 was the failure of Jay Cooke & Co., the reputable New York banking house.[24] Cooke, famous financier of the Civil War, had failed to procure sufficient funds for the construction of his Northern Pacific Railroad, and had consequently seen himself forced to shift a portion of the bank's funds to the road's account to cover the shortfall. When in September 1873, like every year, depositors began recalling their funds in anticipation of the harvesting operations, the bank quickly saw its funds depleted and announced its failure on Thursday, September 18, 1873. The failure of such a large and reputable bank produced a general loss of confidence, immediately sending shockwaves through New York's financial district and subsequently through the entire country and beyond. 'To say that the street became excited would only give a feeble view of the expressions of feeling', the *New York Times* reported on September 19, 1873. 'The brokers stood perfectly thunderstruck for a moment, and then there was a general run to notify the different houses in Wall street [sic] of the failure'. Quickly, things went from bad to worse. 'The street (seen from Broadway) was a compact mosaic of shiny umbrellas, like a bed of mushrooms. Many notable speculators have suspended,' George Templeton Strong noted in his diary on September 19.[25] In normal times, the speculators described by New York's famous diarist could borrow from the city's banks to finance their transactions on the stock exchange. But with markets in turmoil, the banks' corresponding institutions in the interior began recalling their deposits. Consequently, loans to speculators were no longer forthcoming, resulting in many suspensions in quick succession.

As more and more customers recalled their deposits, the threat of a large-scale bank run, and a collapse of the nation's financial system, prompted New York's financial community to swing into action. The New York Clearing House Association (NYCHA), comprising the city's most important financial institutions, agreed to pool their members' reserves, and to issue loan certificates, thus allowing cash-strapped institutions to settle inter-bank accounts. These measures, along with a temporary suspension of specie payments, and a temporary closure of the New York Stock Exchange, restored a measure of calm to the money market and stock exchange.[26]

The days following Cooke's failure were a period of frenzied cabling. At the stock exchange (prior to its closure), 'the president read out the list of failures as fast as it was received by telegraph', one journalist would recall in October 1873. (The accompanying illustration depicted a crowd of men at the Fifth Avenue Hotel, anxiously inspecting the ticker tape with the latest quotations (*Hearth and Home*, October 11, 1873).) Quoting a 'financier in London', the *New York Journal of Commerce* noted that 'cable traffic had much increased since the panic' and 'receipts [were] estimated at $27,000 daily' (September 25, 1873). In early October, two companies, the Franklin Telegraph Company and the American District's Telegraph Company would report a threefold increase in volume (*New York Times*, October 1, 1873). Although this was partially reversed when the stock exchange closed its doors, these numbers show that a large number of market actors had used telegraphic messages to stay afloat of the rapidly evolving situation.

One of these was August Belmont, the American agent of N.M. Rothschild, who first notified the London house of Cooke's failure by cable, then followed up with a letter in which he described the day's events in more detail.[27] Such a letter, of course, took several days to cross the ocean, and for about two weeks, Europeans had to rely on brief cabled messages for intelligence about American events. Those waiting most eagerly for information about the New York situation were the ones with direct ties to New York financial institutions. This applied to a large number of exchange houses in the City of London whose role as an international clearing house of capital flows and investment inevitably exposed local merchants and bankers to disruptions on the other side of the Atlantic.[28] Thus when money began drying up in New York, Americans rushed to increase their liquidity by shipping goods to England and selling the bills that financed these exports. Quickly, however, the market for such bills in New York dried up since Exchange houses and banks no longer had sufficient funds to meet the supply, leading to a temporary blockade in foreign exchange and disrupting grain and produce markets.[29] But as soon as people were informed by telegraph that Americans were selling their bills on London, gold began leaving the City. Commenting on these developments, the *Economist* noted that it was 'generally believed' in the City of London that the Atlantic cable had 'been of greatest service in minimising some of the most dangerous effects of the American panic.'[30] Thanks to the telegraph, New Yorkers quickly received 'intelligence' of these shipments, and, knowing its arrival was imminent, were able to use gold 'by means of "cable transfers" as if it had arrived'. Since 'in a panic, the prospect of relief, if certain' was 'almost as effectual as the actual relief', the demand for gold declined. So great was this advantage, the correspondent concluded, that the present panic was likely to prove milder than the previous one solely on account of the Atlantic cable (*Economist*, October 4, 1873).

This latter prediction about the telegraph's imagined medium-term effects was, at that point, wishful thinking – the correspondent imagined, but could not foresee, how financial and commercial affairs in London would develop during the following months. If this was a clear case of *imagined* reception, the journal's judgment regarding the cable's short-term effects, on the other hand, was closer to the mark. The blockade in foreign exchange, according to Sprague's classic account of the Panic of 1873, lasted from September 19 to September 26, and was thus considerably shorter than it had been in 1857. This can be at least partially explained, as the *Economist*'s correspondent did, by the faster pace of communication in 1873.[31]

London was not the only European market exposed to American events. Austria, much like the United States, had witnessed a period of booming railway construction during the previous years, fuelled by an expansion of the money supply and a surge in agricultural exports, and accompanied by rapidly rising asset prices and frenzied speculation on the Viennese stock exchange. Following a first panicked sell-off in May, the Viennese bourse had barely begun to recover when news of Cooke's failure arrived in September. Amid an already volatile mood, the local market witnessed a new round of liquidations (*Neue Freie Presse*, September 26, 1873).[32] A few days into the panic, the *Neue Freie Presse* examined the telegraph's role in informing Austrian merchants. Much like the *Economist*, the *Presse* was liberal in outlook and widely read in business and financial circles; its business pages regularly featured original correspondence from London and New York.[33] The correspondent noted that the telegraph had made a crucial difference. Unlike in 1857, when the news of the crisis had arrived in Europe together with the crisis itself, now the Atlantic cable had given merchants time to prepare:

> The bills of exchange wandering from America to Europe and from there to America to be cashed in, they are still swimming, while he who here and there is threatened in his credit, gains time to fill the gaps which the looming crisis has created in his credit. Now that the merchant knows the danger that is approaching from the other side of the ocean, the sea separating America from Europe has become something like an outer wall, and the interval between the first news of the crisis and the first presentation of bills has become a scientifically created moratorium … In a time of crisis, one additional day can often mean a saved existence. (*Neue Freie Presse*, September 23, 1873)

Such sentiments recall an interpretation of telegraphy popular with contemporaries and historians alike – that it 'annihilated' time and space.[34] The situations described in the *Economist* and the *Neue Freie Presse* would seem cases in point. For merchants and bankers waiting for the shipment of gold, the actual geographical space between New York and London no longer mattered; all that counted from their perspective was the *news* of shipments. Whether the gold itself took two days or two months to arrive was irrelevant. The interpretation offered by the *Neue Freie Presse*'s correspondent, however, suggests a somewhat more complex picture. According to this account, the Atlantic remained a crucial geographical barrier, and the cables arriving from New York and London were only valuable thanks to the relative sluggishness of ships. The cable did not annihilate time and space as much as create an additional temporal layer. It was the *difference* in speed between the new medium and old modes of transportation, and consequently between the arrival of information and the arrival of bills of exchange, that proved advantageous.[35]

But whether the telegraph annihilated time or layered it, in both cases the upshot was the same – during a time of acute distress, the Atlantic cable served to improve communications and smooth business transactions. While we have no quantitative evidence that would allow us to evaluate the effect of the 'outer wall' described by the *Neue Freie Presse* on distressed merchants, the disruption on the transatlantic market for bills of exchange, as noted above, really was much shorter than it had been in 1857.[36] In this sense, then, the Atlantic cable worked much like it did in normal times: by wiring crucial intelligence, it reduced uncertainty, and rendered financial markets more predictable and efficient.

Letters as a Medium of Trust

When evaluating the role of telegraphy in this context, it is not sufficient to focus on what can be quantified. Rather, I argue, it is equally important to take into account situations in which more was at stake than simply the transmission of intelligence, of gold prices and specie shipments. When the public came to doubt the solvency of an individual, as the case of New York banker George Opdyke shows, letters, by virtue of their form and mode of transmission, could communicate trust in a way that cables could not.

Already prior to Cooke's failure, newspapers had reported that George Opdyke's bank was in trouble and at risk of suspending payments, with some noting, however, that they were most likely unfounded (*New York Commercial Advertiser*, afternoon edition, September 17, 1873). Opdyke, a former mayor of New York City, was a respected member of the city's banking community but was also known to engage in speculative business ventures, according to a contemporary credit report.[37] One of his main lines of business had been the New York Midland Railroad to which his bank was thought to have made considerable advances.[38] When Cooke's fateful dealings with the Northern Pacific became his undoing, therefore, New Yorkers began wondering whether Opdyke would be the next railway entrepreneur to fall a victim to the plunging market for railroad bonds.

Initially, commenting on Cooke's failure, Opdyke had expressed the belief that the 'excitement' would 'blow over in a few days'.[39] Once papers began reporting rumours that he himself could be the panic's next victim,[40] the banker sprung into action, anxious to stave off his institution's suspension. In this situation, time was of the essence: Since it was standard practice for bankers to lend in excess of their bank's reserves, almost no financial institution, no matter how strong, was able to withstand a sustained run of depositors on its assets. Such a scramble for cash by depositors, of course, was the very essence of a banking panic, and Opdyke would only be able to escape the merciless logic of a self-fulfilling prophecy by assuring the financial community of his solvency. In a statement to the *New York Times*, Opdyke consequently insisted that his house was sound, affirming 'in the most positive terms that the house or its creditors had nothing to fear. All they required was a little time to tide over the present difficulty.' (September 19, 1873)

Opdyke's statement that he merely needed a little time, however, was only credible as long as his protestations could be matched by continued public demonstrations and private reassurances of solvency. Accordingly, he spent the next several days writing letters to correspondents from all over the country informing them that his bank was meeting all demands and would continue to do so. On September 19, he wrote: 'The malicious rumor[s] of our suspension are utterly false. They were circulated by stock speculators for their own ends. You need have no fear of the perfect responsibility of our house.' On the same day, he told another correspondent: 'We have had no trouble today nor had we yesterday in meeting everything promptly. I have no fear of our ability to continue to do so. You must have no fear as to the responsibility of our house. Affairs are looking better this afternoon + probably have seen the worst.' By the end of the month, Opdyke finally felt vindicated: 'The papers seemed determined to make us "stop payment"', he wrote, 'but we did not falter for a moment nor doubt our perfect ability to weather the storm.'[41]

Opdyke's choice of medium during this momentous period is significant. Why, we may ask, did he chose to pen letters to his business partners in other cities (which would take at least one day, and often longer, to arrive) rather than send telegrams? If a bank was in danger of suspending payments, it was imperative that all rumours to this effect be squashed as quickly as possible lest they become a self-fulfilling prophecy and trigger a bank run. If a bank was not in imminent danger, on the other hand, and had sufficient funds to withstand a run for several days, even a malicious rumour would not be able to bring it down because the very demonstration of solvency would be enough to disprove it. In Opdyke's case, we may reasonably assume that he was certain that his bank had sufficient funds and would continue to make payments for a considerable amount of time. For this reason, it was not necessary to send out reassurances as quickly as possible. By informing correspondents of his bank's solvency by letter, Opdyke could demonstrate, simply through the choice of his medium, that there was no cause for concern. Had he chosen to send a telegram, on the other hand, he would inevitably have signalled haste and urgency, and this in itself could have been interpreted as a sign that his bank was indeed about to collapse. The message he conveyed in letters was both a function of their form and content and of their transmission: they conveyed calmness and confidence because they were slower to arrive than telegrams and because their content appeared more measured and more elaborate than that of a telegram.[42]

The case of George Opdyke and the financial panic, then, is indicative of the perceived limitations of the way the telegraphic medium was commonly used by business men. Opdyke, we may assume, considered telegrams deficient because he imagined a context of reception in which more was at play than just the message's content. If, as suggested above, telegraphy was well suited to transmitting 'intelligence' in the narrow sense, it revealed its limitations when crisis struck, and merely relaying information was no longer sufficient to change the trajectory of events. What was needed, instead, was something altogether more complex: Opdyke needed his correspondents to *trust* him – trust, being, of course, a crucial ingredient for any actor in the nineteenth-century marketplace, and especially so for a banker.[43] Trust, as Georg Simmel noted, is a means of reducing uncertainty through a peculiar mixture of knowing and not-knowing. A person chooses to trust another person, even though they can never be entirely certain their confidence is warranted. As such, the decision always involves a leap into the unknown, and Opdyke's choice of medium encouraged his correspondents to take this leap.[44] The element of uncertainty, of course, is all the more pronounced during a crisis, a situation which, by definition, is one in need of resolution and thus a moment of decision.[45]

Journalists, Crisis, and Narrativity

As Opdyke's case illustrates, then, communication during a financial crisis was not just about the transmission of intelligence. Somewhat unexpectedly perhaps, this was true not just of bankers in existential distress but of European journalists, too, who, during the first two weeks of the panic, had little to go on besides telegraphic reports. These were reprinted and summarized in great number during this time. Often, however, this was accompanied by commentary that was rather sceptical of telegraphy's role in the crisis.

On September 19, 1873, the *Berliner Börsen-Zeitung*, Germany's foremost financial publication, had published a telegram from Reuters' London office in its evening edition, noting that Cooke's bank had suspended payments. At this point, the correspondent explained, the only thing that could be said for certain was that its troubles stemmed from the bank's involvement with the Northern Pacific Railroad. During the following days, news from New York proliferated as more telegrams began pouring in and observers in Vienna and Berlin tried to assess the effects the American events would have on European markets.

For German observers, this period was one of uncertainty. In the wake of the proclamation of the German Empire in 1871 and a string of liberal economic reforms in the late 1860s and early 1870s, newly unified Germany, too, had seen a boom in railway construction and a proliferation of newly established joint-stock companies, partly fuelled by the payment of the French war indemnity.[46] Then, following a period of rapidly rising prices, the Berlin bourse had entered a phase of protracted decline in November 1872,[47] though things had begun looking brighter in August 1873, leading some observers to hope that a full-blown German crisis might yet be averted. When Cooke's bank's failure was announced in German papers, therefore, German financial circles were anxious to learn more. Many Germans had invested considerable sums in American railroads, lured by dazzling prospectuses promising high rates of return compared to those of German companies. By the summer of 1873, some of these were already in default – though none as large in scale as the Northern Pacific.[48] If the American banking crisis were to develop into a serious commercial crisis, moreover, German businesses were almost sure to be affected. What Germans feared most, then, was the kind of transatlantic financial contagion the world had last seen sixteen years earlier when a banking panic in New York had triggered the bankruptcy of almost three hundred merchants in Hamburg alone.[49]

In this situation, many journalists felt the information provided by news agencies via cable (only very few papers had the means to pay an American correspondent) was inadequate. The more telegrams arrived, indeed, the more confusing the situation became. Following an agreement in the 1870s between Reuters, Havas, the French news agency, and WTB, its German counterpart, telegraphic news from the United States was compiled by a Reuters agent in New York and forwarded to London. There, it was then translated into German or French and sent to newspapers on the Continent who paid for this service as subscribers.[50] The time between telegram being sent from New York and printed in newspapers was short: generally, telegraphic reports from New York were not older than one day.

'At the moment the contradictions are so great', the *Börsen-Zeitung* reported on 20 September 1873, 'that it is not possible to gauge the extent to which European markets are affected.' Two days later, things had still not improved. 'It is on the whole a remarkable phenomenon', the same paper now noted, 'that the news regarding the large American failures are thus far rather sketchy, and that the telegraph, which normally reports on all American events in such great detail, in this case is in no way fulfilling its obligations.' In this imaginary, it seemed almost as though the technology had assumed an agency of its own, thus eliding that of its users. On the 25th, the economist Max Wirth attempted to shed light on the evolving situation in an article for the liberal *Schlesische Presse* but had to admit that the 'telegraphic reports' on which his analysis was based seemed 'aphoristic, often cryptic and contradictory.'[51] Similarly, a journalist in Frankfurt complained that an employee of the Wagner agency tasked with transmitting Reuters telegrams to Frankfurt had mistakenly noted the closure of the 'Clearing House' instead of the 'Gold Clearing House' and, even more confusingly, said that Chicago had temporarily banned all 'wheat sales' (*Getreideverkäufe*) when in fact the message should have read 'futures trading' (*Zeitverkäufe*) (*Frankfurter Zeitung*, October 3, 1873).[52] This critique of telegraphy was not confined to German journalists. In London, the

Economist likewise bemoaned the scantiness of the telegraphic cables received from New York. Commenting on the NYCHA's issuance of loan certificates, the journal's correspondent admitted that this measure was 'quite unintelligible to us from the bare allusion in the telegrams.' (*Economist*, September 27, 1873)

While German journalists reassured themselves that all was not lost, and that the German commercial world would resist the onslaught of ominous news from across the Atlantic (*Der Aktionär*, September 28, 1873), the palpable sense of fear and urgency in these indictments of the telegraphic medium suggests that such reassurances were largely of a strategic nature. If commentators had been certain of the robustness of their domestic market, their craving for Americans news would have been less pronounced. The days and weeks that followed would show that such fears were not unwarranted, and that the German financial and commercial world was indeed highly susceptible to shocks from outside. In October 1873, the Quistorp'sche Vereinsbank, a well-known Berlin institution, suspended payments; soon, bankruptcies were being announced in German newspapers far and wide and the outlook in commercial circles had become decidedly pessimistic.[53]

While Germans were still busy trying to piece together the sequence of events and understanding their significance, Americans in early October 1873 were already beginning to take stock of the lessons learned, with many excoriating the foolhardiness and recklessness of bankers and speculators in strongly moralistic terms. *Harper's Weekly,* reporting from New York, looked back on the past month's events and observed that 'men who are generally cool and clear-headed' had 'become so wrought up by mutual influence, by reports, suspicions and fears, that wild excitement' had 'utterly' overthrown reason. 'The statement has been made,' the correspondent continued,

> that by means of the telegraph the situation of Wall Street at its most critical moment was better understood in Boston, Philadelphia, Chicago, and St. Louis than by the frenzied crowds of brokers, bankers, and speculators in New York, who huddled together only to stimulate the wild and ruinous excitement which individual coolness, confidence, and courage would have decidedly checked. (*Harper's Weekly*, October 11, 1873)

This, then, suggested a different picture: the telegraph was not an agent of disinformation but of order and calmness. In a situation marked by chaos and 'wild and ruinous excitement', the telegraph and the 'telegraph style', this writer implied, isolated and filtered intelligence, thus stripping the event of its opaqueness and rendering it intelligible. Those who through their desperate actions created and sustained the panic, by contrast, were at the mercy of 'mutual influences, ... reports, suspicions and fears' (ibid.) – volatile emotions that had nothing in common with the intelligence investors in normal times relied on.

How may we interpret these claims? Did the telegraph fail to transmit vital intelligence just when it mattered most? Or was it, on the contrary, a medium that brought order to chaos, as the *Harper's* writer claimed? There is little evidence to suggest that people in other American cities had a better grasp of the New York panic than New Yorkers themselves. Brokers huddling in the streets of Manhattan's financial district were indeed unlikely to have a clear idea of what the markets' next movements would be (did they ever?), and how to best salvage their investments. At the same time, however, the New York financial community had, after all, managed to successfully calm markets and avert a full-blown collapse of the system, suggesting they were well equipped to make sense of the unfolding crisis. It seems unlikely, then, that telegraphy made much difference in this respect. A banker's understanding of the situation depended less on any specific medium but rather on past experience (thus the loan certificates used by the Clearing House had been devised in the aftermath of the Panic of 1857)[54] and an abstract, general notion of the functioning of the money market which did not rely on any particular piece or form of intelligence. But the fact that the *Harper*'s writer *imagined* the telegraph as an agent of calmness is indicative of the myriad possibilities that were still ascribed to this technology decades after its first introduction.

As for the German complaints regarding the sketchiness of telegraphic reports, there is likewise not much evidence to support the contemporary view according to which the German public was at first significantly less well informed of Wall Street events than New Yorkers. While Germans had less information to work with initially, more information did not automatically translate into a better grasp of the situation. In New York, too, uncertainty reigned and rumours abounded during the first few days – if not among the members of the NYCHA, then certainly among many observers and investors. On September 24, for example, the *New York Journal of Commerce* summarized the day's event with an optimistic headline: 'The Panic Subsiding.' On the 25th, however, the New York merchant Simon F. Mackie seemed unsure whether the panic was truly over: 'The panic of last week has somewhat subsided but everyone is looked upon with suspicion and it is utterly impossible to say whether it is over or no.'[55] Thus, when a Reuters correspondent reported that the mood in New York had improved and the next cable reporting further failures implicitly undermined this assessment, he was not necessarily embellishing the facts; more likely, he was accurately depicting the volatile and constantly changing atmosphere in New York. But while on Wall Street, this was interpreted as a natural feature of a panic, Europeans tended to view this as a sign of inefficient communication and a consequence of the telegraphic medium itself.

The main reason for skepticism vis-à-vis telegraphy, I would argue, was that the panic called into question the very nature of conventional 'intelligence' – brief notices of a quantitative or descriptive nature that might inform an investor's decision. During a financial panic, the usefulness of such 'intelligence' from a journalistic perspective was fairly limited. For events evolved with such rapidity that any individual piece of intelligence was likely to be obsolete by the time it reached its destination. With the panic at its height, even a few hours could make a crucial difference. Consequently, when pondering the quality of the news transmitted during the panic, journalists and other observers emphasized completeness and coherence, often implying that only a narrative account of causal sequences could be considered an adequate rendition of the chaotic event known as a 'panic'. Describing the panic in real time, before it had run its course, presented journalists with a considerable challenge, as the *Chronicle* noted on September 27, 1873: 'Amidst the great confusion and excitement which has been prevalent in financial circles since the date of our last report, and the occurrence of important events crowding one upon another in rapid succession, it is somewhat difficult to give a review of the past week which shall be at all satisfactory.' In a similar vein, a British journalist noted on the same day that there was 'so much still obscure in the telegrams that for a detailed description of the remedial measures adopted and their operation we must wait for newspapers and correspondence covering the period described.' (*Economist,* September 27, 1873) From a journalistic perspective, then, an account of a financial panic required more than just morsels of intelligence. A panic, this interpretation implied, could only be made sense of in a narrative, linear form, with the benefit of hindsight. Isolated bits of information lacked context and coherence; they elided the question of causality and frustrated observers' desire for completeness. In this respect, the panics of 1873 were not unusual: as Amelia Bonea and Dwayne Winseck respectively have shown, both the

Franco-Prussian war and the Latin American debt crisis in 1874 prompted similar critiques in journalistic circles.[56] In times of crisis, both political and financial, it seems, contemporaries displayed an increased awareness of the mediated and media-based nature of events which then became the topic of critical reflection and discussion.

Conclusion

What, then, are we to make of contemporary opinions regarding the use and imagined reception of telegraphic cables, both real and imagined, in a time of financial panic? The panic clearly gave rise to different assessments, with some highlighting the telegraph's efficacy while others lamented its deficiencies. To some extent, the cases presented in this article dovetail with much of the economic history literature on the subject: telegraphy indeed worked to the advantage of market actors, providing them with timely, crucial intelligence that worked to calm the exchange market much faster than had been possible in earlier crises. Unlike journalists, who wrote for private investors and a wider public, professional and experienced market actors did not require a coherent, encompassing account of the panic. Instead, they continued to make decisions much as they did during calmer times, on a case-by-case basis, relying on isolated bits of information that nevertheless provided a sufficient basis for financial decision-making. In this respect, telegraphy and the press played a crucial role not just in mediating, but in defining and shaping the panic. The many thousand individual decisions and actions that together defined and constituted the financial crises of 1873 were informed by, and in turn mediated through, telegraphic press reports, a self-reinforcing dynamic without which the panics cannot be adequately understood.

At the same time, however, both observers and market actors by and large refrained from making what at first glance might seem like a rather obvious charge: namely that the almost instantaneous transmission of the news of Cooke's failure precipitated the transatlantic contagion of financial distress, and prompted an overreaction in European business circles. The *Economist's* correspondent, in his detailed account of the telegraph's effect on transatlantic specie flows, was one of the few observers to suggest as much in his otherwise positive assessment: 'it is only fair to admit', he noted, 'that [the telegraph] has a drawback at times in its echoing power—each money market is troubled by bad news of the other, and the bad news tends to accumulate.' But on balance, he concluded, the telegraph's 'calming effect' was stronger than its 'echoing power' (October 4, 1873). At the same time, there were many voices that were considerably more skeptical regarding the telegraph's potential. George Opdyke's case, I have argued, suggests that telegraphy appeared deficient in a crucial respect: In a time of crisis, it could transmit intelligence but not trust. But when such intangible issues as trust and confidence were at stake, the medium could matter as much, or more than the message. Opdyke's case illustrates how some market actors could actively employ different types of media to their ends, and that the choice of medium was in important ways informed by the way the sender imagined its reception.

Journalistic reports written both during and after the panic at first seem to suggest a contradictory picture. These apparent contradictions, I would argue, can be explained by the respective positions of both observers on the one hand and market actors on the other, or of passive and active users of cables, of senders and recipients. While, in another case of imagined reception, an observer in New York, evoking an unspecified source ('it has been said'), speculated that telegraphic information received in other cities provided outsiders with a better grasp of the situation than New Yorkers, journalists in Germany came to the opposite conclusion. German journalists who felt let down by the sometimes unintelligible information contained in telegrams, I have argued, were primarily concerned with providing their readers with as accurate an account as possible, an account which had to conform to standard journalistic requirements of completeness, coherence, and narrativity. Where the summary statements of cables did not add up to a coherent picture, they blamed the medium for what was in fact a constitutive feature of any financial crisis. These different perspectives help explain why telegraphy was subject to such disparate assessments.

It seems plausible, moreover, to interpret these disparate, often critical voices as a testament to the longevity of older imaginaries that continued to inform expectations decades after they were first formed. In telegraphy's early days, as seen above, many observers imagined that its practical use would lead to an improvement in the transmission of information; more and speedier information, in this imaginary, was tantamount to an overall increase in knowledge. In this way, imagined use continued to inform interpretations of actual use for several decades, a dynamic that was discernible in other cases, too.[57] It would thus seem promising to investigate if and when in the late 19th or early 20th century this early imagined use shed its hold on contemporaries, and telegraphy was no longer considered in the light of old imagined promises but as a technology whose advantages and disadvantages in times of crisis were accepted as a matter of course.

Bibliography

Ahrens, Gerhard, *Krisenmanagement 1857. Staat und Kaufmannschaft in Hamburg während der ersten Weltwirtschaftskrise.* Hamburg: Verlag Verein für Hamburgische Geschichte, 1986.

Allen, Helen, John Hawkins, and Setsuya Sato, 'Electronic Trading and its Implications for Financial Systems'. In *Technology and Finance. Challenges for Financial Markets, Business Strategies and Policy Makers,* edited by Morton Balling, Frank Liedman, and Andy Mullineux, 204–238. London: Routledge, 2003.

Baltzer, Markus, *Der Berliner Kapitalmarkt nach der Reichsgründung 1871. Gründerzeit, internationale Finanzmarktintegration und der Einfluss der Makroökonomie.* Berlin: Peter Lang, 2007.

Berghoff, Hartmut, 'Markterschließung und Risikomanagement. Die Rolle der Kreditauskunfteien und Agenturen im Industrialisierungs- und Globalisierungsprozess des 19. Jahrhunderts.' *Vierteljahrsschrift für Sozial- und Wirtschaftsgeschichte* 92, no. 2 (2005): 141–162.

Blondheim, Menahem, *News over the Wires. The Telegraph and the Flow of Public Information in America, 1844-1897.* Cambridge, MA: Harvard University Press, 1994.

Bonea, Amelia, 'The Medium and Its Message. Reporting the Austro-Prussian War in The Times of India'. *Historical Social Research* 35, no. 1 (2010): 167–187.

John A. Britton, *Cables, Crises, and the Press. The Geopolitics of the New International Information System in the Americas, 1866-1903.* Albuquerque: University of New Mexico Press, 2013.

Calomiris, Charles W., and Larry Schweikart, 'The Panic of 1857: Origins, Transmission, Containment'. *The Journal of Economic History* 51, no. 4 (1991): 807-834.

Carey, Henry, *Financial Crises: their Causes and Effects.* Philadelphia: Baird, 1860.

DuBoff, Richard B., 'The Telegraph in Nineteenth Century America. Technology and Monopoly'. *Comparative Studies in Society and History* 26, no. 4 (1984): 571–586.

Engel, Alexander, 'Buying Time. Futures trading and telegraphy in nineteenth-century global commodity markets.' *Journal of Global History* 10, no. 2 (2015): 284–306.

Ferguson, Niall, *The World's Banker. The History of the House of Rothschild.* Volume I. London: Weidenfeld & Nicholson, 1998.

Field, Phyllis F., ‘Opdyke, George’. *American National Biography Online* February 2000.

Paul Fletcher, ‘The Uses and Limitations of Telegrams in Official Correspondence between Ceylon’s Governor General and the Secretary of State for the Colonies, circa 1870–1900.’ *Historical Social Research* 35, no. 1 (2010): 90–107.

Forsyth, David P., *The Business Press in America, 1750–1865.* Philadelphia: Chilton Books, 1964.

Gömmel, Rainer, ‘Entstehung und Entwicklung der Effektenbörsen im 19. Jahrhundert bis 1914.’ In *Deutsche Börsengeschichte,* edited by Hans Pohl, 135–207. Frankfurt am Main: Knapp, 1992.

L. W. Hamilton & Co, *Stock speculation*. New York 1875.

Hamon, Henry, *New York Stock Exchange Manual, Containing its Principles, Rules, and its Different Modes of Speculation*. New York: J. F. Trow, 1865. Reprint: Westport, Conn.: Greenwood Press, 1970.

Hecht, Felix, *Das Börsen- und Actienwesen der Gegenwart und die Reform des Actien-Gesellschafts-Rechts.* Mannheim 1874.

Hoag, Christopher, ‘The Atlantic Telegraph Cable and Capital Market Information Flows.’ *The Journal of Economic History* 66, no. 2 (2006): 342-353.

David Hochfelder, *The Telegraph in America, 1832–1920.* Baltimore: The Johns Hopkins University Press, 2012.

Yrjö Kaukiainen, ‘Shrinking the world: Improvements in the Speed of Information Transmission, c. 1820–1870’, *European Review of Economic History* 5, no. 1 (2001): 1-28.

Koselleck, Reinhard, ‘Krise’. In *Geschichtliche Grundbegriffe. Historisches Lexikon zur politisch-sozialen Sprache in Deutschland,* edited by Otto Brunner, Werner Conze, and Reinhart Koselleck, Vol. 3, 617-650. Stuttgart: Klett Cotta, 1982.

Larson, Henrietta M., *Jay Cooke. Private Banker*. Cambridge, MA: Harvard University Press, 1936.

Lepler, Jessica M., *The Many Panics of 1837. People, Politics, and the Creation of a Transatlantic Financial Crisis*. New York: Cambridge University Press, 2013.

Lewis, Michael, *Flash Boys. A Wall Street Revolt.* New York: W. W. Norton & Company, 2014.

Liedtke, Rainer, *N M Rothschild & Sons. Kommunikationswege im europäischen Bankenwesen im 19. Jahrhundert.* Cologne: Böhlau, 2006.

Lubetkin, Michael J., *Jay Cooke’s Gamble. The Northern Pacific Railroad, the Sioux, and the Panic of 1873.* Norman: University of Oklahoma Press, 2006.

Luhmann, Niklas, *Vertrauen. Ein Mechanismus der Reduktion sozialer Komplexität.* Second revised edition. Stuttgart: Ferdinand Enke, 1973.

Matis, Herbert, *Österreichs Wirtschaft 1848-1913. Konjunkturelle Dynamik und gesellschaftlicher Wandel im Zeitalter Franz Josephs I.* Berlin: Duncker & Humblot, 1972.

McCusker, John J., ‘The Demise of Distance: The Business Press and the Origins of the Information Revolution in the Early Modern Atlantic World.’ *American Historical Review* 110, no. 2 (2005): 295–321.

Michie, Ranald, *The City of London. Continuity and Change, 1850-1990.* Basingstoke: Macmillan, 1992.

Müller, Simone M., *Wiring the World.* New York: Columbia University Press, forthcoming.

Müller, Simone M., and Heidi Tworek, 'The Telegraph and the Bank: On the Interdependence of Global Communications and Capitalism, 1866-1914.' *Journal of Global History* 10, no. 2 (2015): 259–283.

Müller-Pohl, Simone, '"By Atlantic Telegraph". A Study on Weltcommunication in the 19th Century.' *Medien & Zeit* 25, no. 4 (2010): 40–54.

Neuwirth, Joseph, *Die Spekulationskrisis von 1873.* Leipzig: Duncker & Humblot 1874.

Nickles, David Paul, *Under the Wire. How the Telegraph Changed Diplomacy.* Cambridge, MA: Harvard University Press, 2003.

Oberholtzer, Ellis P., *Jay Cooke. Financier of the Civil War.* Volume II. Philadelphia: George W. Jacobs & Co., 1907

Olegario, Rowena, *A Culture of Credit. Embedding Trust and Transparency in American Business.* Cambridge, MA: Harvard University Press, 2006.

Alan R. Pred, *Urban Growth and the Circulation of Information: The United States System of Cities 1790-1840.* Cambridge, MA: Harvard University Press, 1973.

Read, Donald, *The Power of News. The History of Reuters 1849–1989.* Oxford: Oxford University Press, 1992.

Redlich, Fritz, *The Molding of American Banking. Men and Ideas. Part II. 1840–1910.* New York: Hafner Publishing Company, 1951.

Ronge, Ulrich, *Die langfristige Rendite deutscher Standardaktien. Konstruktion eines historischen Aktienindex ab Ultimo 1870 bis Ultimo 1959.* Frankfurt am Main: Peter Lang, 2002.

Schultz, Charles H. W., *New York in September, 1873. Wall Street and the Stock Exchange. The Panic: Its Causes and Effects*. New York 1873.

Slauter, Will, 'Forward-Looking Statements. News and Speculation in the Age of the American Revolution.' *Journal of Modern History* 81, no. 4 (2009): 759-792.

Sprague, O. M. W., *History of Crises under the National Banking System.* Washington: Government Printing Office, 1910.

Paul Starr, *The Creation of Media. Political Origins of Modern Communications.* New York: Basic Books, 2004.

The Diary of George Templeton Strong. Post-war Years 1865-1875. Edited by Allan Nevins and Milton Halsey Thomas. New York: Macmillan, 1952.

Wenzlhuemer, Roland, *Connecting the Nineteenth-Century World. The Telegraph and Globalization.* Cambridge: Cambridge University Press, 2013.

Wenzlhuemer, Roland, '"Less Than No Time". Zum Verhältnis von Telegrafie und Zeit.' *Geschichte und Gesellschaft* 37 (2011): 592–613.

White, Richard, 'Information, Markets, and Corruption: Transcontinental Railroads in the Gilded Age.' *Journal of American History* 90, no. 1 (2003): 19–43.

Wicker, Elmus, *Banking Panics of the Gilded Age.* Cambridge: Cambridge University Press, 2000.

Wilkins, Mira, *The History of Foreign Investment in the United States to 1914*. Cambridge, MA: Harvard University Press, 1989.

Dwayne Winseck, 'Double-Edged Swords: Communications Media and the Global Financial Crisis of 1873'. In: Peter Putnis, Chandrika Kaul, Jürgen Wilke (eds.), *International Communication and Global News Networks. Historical Perspectives.* New York: Hampton Press, 2011: 55-81.

Wirth, Max, *Geschichte der Handelskrisen.* Second revised edition. Frankfurt am Main: J. D. Sauerländer, 1874.

Caitlin Zaloom, *Out of the Pits. Traders and Technology from Chicago to London.* Chicago: University of Chicago Press, 2006.

[1] Quoted in Du Boff, 'Telegraph', 572. Du Boff argues that while the telegraph did reduce regional price differentials, it promoted both competition *and* monopoly.

[2] On the social exclusivity and prohibitive pricing of telegraphic communication see Müller-Pohl, 'Weltcommunication', 42–48.

[3] Ferguson, *World's Banker*, 249. 'Throughout the 1850s, he [James Rothschild] repeatedly complained that "the telegraph is ruining our business".' Ibid., 573. On telegraphy's effect on the Rothschilds' business and their network of agents, see Liedtke, *N M Rothschild & Sons*, 84-90.

[4] Schultz, *New York in September,* 10.

[5] In this respect, the concept differed from earlier 'speculative' forms of financial and political news prominent in the late eighteenth century; see Slauter, 'Forward-Looking Statements'.

[6] Hamon, *Stock Exchange Manual*, 142.

[7] See, for example, Hamilton & Co., *Stock Speculation*, 5.

[8] McCusker, 'Demise of Distance'; Forsyth, *Business Press in America*.

[9] Geheimes Staatsarchiv Preußischer Kulturbesitz, I HA Rep. 77 Tit. 945 Nr. 51 vol. 1, 90. Again, the rhetoric of 'equitable treatment' here of course obscured the fact that it was equitable only with regard to those customers who could afford to send telegrams.

[10] Blondheim, *News over the Wires,* 173; Starr, *Creation of Media*, 174f.

[11] Hoag, 'Atlantic Telegraph Cable'; Engel, 'Buying Time', 302; Wenzlhuemer, *Connecting,* 84–88, quotation on 86. On the interdependence of communication and capitalism more generally see Müller and Tworek, 'Global Communications and Capitalism'.

[12] Hochfelder, *Telegraphy,* 101-137.

[13] This narrow definition explicitly excludes economic or commercial crises, i.e. periods of recession or depression which affect not only financial institutions but trade and industry more generally. These periods may last months or years.

[14] Nickles, *Under the Wire.* On the nexus between political crises and telegraphy in the Americas, see also Britton, *Cables.* Britton argues that from the 1890s onwards in particular, the speed of telegraphic transmission coupled with an aggressive press acted as a destabilizing force on international relations.

[15] For an early, tentatively optimistic assessment of the relationship between electronic trading and financial stability see Allen, Hawkins, and Sato, 'Electronic Trading'. For an engaging account of how high-frequency trading has been used to profit from arbitrage see Lewis, *Flash Boys.* For an ethnographic account of how the introduction of electronic trading transformed the visual appearance of the market to traders see Zaloom, *Out of the Pits*,151–160.

[16] Gömmel, 'Entwicklung der Effektenbörsen', 150; Du Boff, 'Telegraph', 578.

[17] Winseck, 'Double-Edged Swords'.

[18] In this article, the term 'Panic of 1873' refers to the financial crisis in the United States while the term 'panics of 1873' comprises the numerous instances of panicked financial disruptions on both sides of the Atlantic.

[19] Edgerton, 'From innovation to use'.

[20] Postal delivery by stagecoach was still the most common method by far in the 1830s. See Pred,

Urban Growth, 85.
[21] Lepler, *The Many Panics,* 110, 158.
[22] Calomiris/Schweikart, 'Panic of 1857'.
[23] Rosenberg, *Weltwirtschaftskrise,* 120–124. Unlike in 1837, letters announcing the news crossed the Atlantic in steamships; the transmission time was thus considerably shorter. On improvements in the speed of information transmission during this period see Kaukiainen, 'Shrinking the World', 5, 15.
[24] On Cooke see Oberholtzer, *Jay Cooke*; Larson, *Jay Cooke*; and Lubetkin, *Jay Cooke's Gamble*.
[25] *Diary of George Templeton Strong*, 494.
[26] Sprague, *History of Crises*; Wicker, *Banking Panics*. The NYCHA thus effectively assumed the function of a national central bank, as Sprague first pointed out. More recently, Wicker has argued that the suspension of specie payments was probably not necessary and actually exacerbated the situation.
[27] August Belmont to N. M. Rothschild and Sons, September 19, 1873, Rothschild Archive London XI/62/23C. On Rothschild's network of agents, see Liedtke, *N M Rothschild & Sons.*
[28] Michie, *City of London.*
[29] This is described in detail by Sprague, *History of Crises*, 58–60.
[30] This positive assessment was summarized and endorsed in *The Nation*, October 23, 1873. For a similarly, but less detailed, positive account of telegraphy's role, see *Commercial and Financial Chronicle*, December 20, 1873.
[31] Sprague, *History of Crises*, 58. Unlike the *Economist*, Sprague argued that the gold shipments during this time were relatively unimportant for the foreign exchange market as the United States were not on a species basis in 1873. He attributed the improvement in exchange dealings to the loan certificates issued by the NYCHA which improved the banks' liquidity and enabled them to make loans to foreign exchange dealers. But although we cannot establish a definite causal relationship, it seems plausible to assume, as the *Economist* did, that the gold shipments did have a psychological effect. Gold was, after all, essential to international trade.
[32] Neuwirth, *Spekulationskrisis*, 84–105.
[33] Matis, *Österreichs Wirtschaft*, 214.
[34] For a critical discussion of such perceptions, see Müller, 'Wiring the World'; Wenzlhuemer, 'Less Than No Time'.
[35] In a similar vein, Alexander Engel has recently argued that telegraphy allowed merchants and brokers to take advantage of a new 'double time' of commercial transactions, whereby futures trading commodified the difference in transportation time between goods and information. See Engel, 'Buying Time'. For the Panic of 1873, Winseck notes that the cables created a new 'liminal space' between panicked and normal markets, thus making a related argument to mine, albeit it in terms of space rather than time. See Winseck, 'Double-Edged Swords', 71.
[36] Sprague, *History of Crises*, 58.
[37] Field, 'Opdyke'; New York City, Vol. 200, 400 SS, R. G. Dun & Co. Credit Report Volumes, Baker Library, Harvard Business School.
[38] Ibid.
[39] George Opdyke to A. M. Palmyra, 18 September 1873, letter book September–December 1873, George Opdyke & Company Records, New York Historical Society.
[40] For reports on rumours of Opdyke's impending failure see New York Commercial Advertiser, September 17, 1873; New York Journal of Commerce, September 25, 1873.
[41] Opdyke to E. Peterson, 19 September 1873; Opdyke to Meldson & Co., 19 September 1873; Opdyke to J. H. Gould, 30 September 1873, letter book September–December 1873, George Opdyke & Company Records, New York Historical Society.
[42] A similar point is made regarding political correspondence in the British Empire by Fletcher, 'Uses and Limitations', 100–105.
[43] On the importance of trust in the nineteenth-century marketplace see, for example, Olegario, *Culture of Credit*; Berghoff, 'Markterschließung und Risikomanagement'.
[44] Luhmann, *Vertrauen*, 25–27.
[45] Koselleck, 'Krise'.
[46] The peace treaty forced France to pay five billion Francs in reparations in several installments; according to Rainer Gömmel, by October 1873 about 2.5 to 3 billion Francs had had a direct impact on German capital markets. See Gömmel, 'Entwicklung der Effektenbörsen', 154. On French reparations, see also Baltzer, *Berliner Kapitalmarkt,* 5ff.
[47] Ronge, *Rendite deutscher Standardaktien*, 212.
[48] Wilkins, *Foreign Investment*, 121. Despite their predilection for American railway securities, Germans had largely shunned Cooke's Northern Pacific bonds. See Larson, *Jay Cooke*, 295ff.

[49] Ahrens, *Krisenmanagement 1857*, 41.
[50] Read, *Power of News*, 55–58.
[51] Quoted in Wirth, *Geschichte der Handelskrisen*, 610.
[52] I thank Robert Radu for alerting me to this source.
[53] Wirth, *Geschichte der Handelskrisen*, 658.
[54] Redlich, *Molding of American Banking*, 158–161.
[55] Letter Book March 1873 – January 1874, Robert Mackie and Sons Collection, New York Historical Society.
[56] Bonea, 'Medium and Its Message', 182; Winseck, 'Double-Edged Swords', 72f.
[57] Ibid.